BRIEF ESSAY ON LIFE AND ACTIVITY OF PROFESSOR JALAL A. ALIYEV

Jalal Alirza Aliyev was born on June 30th, 1928 in Nakhchivan, the Republic of Azerbaijan. He graduated in 1944 from the Faculty of Natural Sciences of a 2-year Nakhchivan Teachers' Institute and worked as a teacher of biology at schools in remote mountainous villages of Bananyar and Uzunoba of the Nakhchivan Autonomous Republic. In 1946 he entered the Biological Faculty of Azerbaijan State University and graduated in 1951 with distinction. As a third year student (1948), *J.Aliyev* began to work as a research assistant at the Department of Plant Physiology and then he selected this field of biology as a major for his future scientific activity. He took a post-graduate course at the Azerbaijan Academy of Sciences in 1954, where he was specialized on plant physiology and defended a thesis “Effect of microelements on the growth and productivity of wheat” to receive the scientific degree of the Candidate of Biological Sciences (PhD) in 1955. The development of this important scientific research direction was further reflected in his thesis on the degree of Doctor of Biological Sciences under the title of “Photosynthetic activity, mineral nutrition and productivity of plants” (1971). From 1951 till now *J.Aliyev* leads research projects at the Department of Plant Physiology and Biotechnology in the Research Institute of Crop Husbandry and simultaneously, since 1971 he is the head of the Department of Fundamental Problems of Biological Productivity in the Institute of Botany, Azerbaijan National Academy of Sciences, which was founded by him. In 1976, he was elected as a correspondent member and in 1980 as an active member of Azerbaijan Academy of Sciences. Since 1981 until 1990 he was holding the post of Academician-secretary at the Department of Biological Sciences of Azerbaijan Academy of Sciences.

Starting from early 1970s till now, *J.Aliyev* has trained young scientists who have graduated from universities with different specialties, in particular, biology, chemistry, physics, mathematics, agrochemistry. Thanks to the joint efforts of these trained specialists, for the first time the application of mathematical methods and information technology in our republic became possible and available to solve the theoretical and practical questions of biology and agriculture. In this respect, important relationships and joint collaborations were established with leading research institutions and prominent scientists of Moscow, St. Petersburg, Novosibirsk, Kiev and many others.

In connection with development of investigations in the field of physico-chemical biology, in particular, biochemistry and biophysics, *J.Aliyev* has acted as the initiator and founder of the development of new directions of researches, namely molecular and cellular biology, molecular genetics and biotechnology, mathematical biology, computational biology and bioinformatics in the Republic of Azerbaijan.

The activity of profession *J.Aliyev* was not only limited to the wide range of fundamental researches, but it also involved applied science. Thus, by integration of multilateral research aspects of photosynthesis, the idea of so-called “good” photosynthesis was brought forward which defined high and qualitative crop. As a result of these fundamental researches, creation of large number of durum and bread wheat genotypes was brought to realization.

Under initiative of the professor *J.Aliyev*, about 400 PhD and doctors of sciences have been

trained; further, under his personal supervision, 80 PhD and 11 Doctor of Sciences (Dr.Sci.) students have successfully defended their thesis. By training and supervising them, he created his own scientific school. At this moment, these former students are currently leading scientists in many research centers, and the universities of Azerbaijan and around the world. Scientific findings of *J.Aliyev* and his colleagues have received wide recognition abroad as well. They actively participate in congresses and conferences. The works of his scientific activity have been published in peer-reviewed scientific journals. *J.Aliyev* has authored or coauthored more than 600 scientific publications (including 20 monographs and books) published in local and international editions. As a member of many scientific and academic councils, *J.Aliyev* also promoted development of photosynthetic researches.

Publishing and editorial work took a big place in the scientific activity of *J.Aliyev*. He is an editor-in-chief of the official journal of "Proceedings of Azerbaijan National Academy of Sciences" (Biological sciences), a member of Editorial Board of "Reports of Azerbaijan National Academy of Sciences", and scientific editor of a number of books and proceedings.

He is a foreign member of the Russian Academy of Agricultural Sciences (1995), the Ukrainian Academy of Agrarian Sciences (1995) and the Academy of Agrarian Sciences of the Republic of Belarus (1996); a member of International Society for Plant Molecular Biology (1994); a member of American Society of Plant Biologists (1994); a member of International Society on Photosynthesis Research (1995); a regular member of the Japanese Society of Plant Physiologists (1997); a regular member of International Cell Stress Society (1998). Professor *J.Aliyev* is the head of National Program on Genetic Resources (1996); chairman of National Committee on Bioethics, the Ethics of Scientific Knowledge and Technology (UNESCO) (1999); chairman of Azerbaijan Society of Biochemists & Molecular Biologists (1999); president of the Foundation of "Development of New Fields of Biology" (BEYSIF) (1994).

J.Aliyev is the Honoured Scientific Worker (1982). He has been awarded with the Soviet Medal for Meritorious Labour during the Great Patriotic War in 1941-1945 (1946) and twice with the Order of Labour Red Banner in 1978 and 1986 and a number of other orders and medals. For his great contributions to science in Azerbaijan, *J.Aliyev* has been honoured with the Order of Independence of Azerbaijan Republic (1998), the Order of Glory of the Republic of Georgia (2003), the Honourary diploma from the President of the Republic of Azerbaijan (2008) and the Order of Glory of the Republic of Azerbaijan (2013). In addition, he was elected as a member of Milli Majlis (Parliament) of the Republic of Azerbaijan four times (1995, 2000, 2005, and 2010).

Closely caring and thoughtful of qualified education of young scientists, professor *J.Aliyev* possesses qualities such as strict adherence to principles, talent for scientific prediction, tendency to investigation of the indefinite and unknown. His characteristics are harmoniously supplemented with his fascination and kindness always felt by his collaborators, colleagues and students.

Currently *Professor Jalal Aliyev* successfully continues his scientific activities in the area of novel trends of modern biological sciences.